<u>REMARKS</u>

The present application was filed on January 22, 2001 with claims 1-20. In the outstanding Office Action, the Examiner: (i) rejected claims 1-4, 6-13 and 15-18 under 35 U.S.C. §102(b) as being anticipated by alleged "admitted prior art" (APA) at pages 2-7 and FIG. 3 of the present application; (ii) acknowledged allowable subject matter in claims 5 and 14; and (iii) allowed claims 19 and 20.

Applicant greatly appreciates the acknowledgment of allowable subject matter in claims 5 and 14, and the allowance of claims 19 and 20.

Regarding the §102(b) rejection of claims 1-4, 6-13 and 15-18, it is well-established law that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Applicant believes that said claims are patentable over the alleged APA since the alleged APA fails to teach or suggest each and every element of said claims and, thus, the rejection fails to meet the above-cited legal requirement.

By way of example and *inter alia*, the alleged APA does not disclose "an intermediate storage element, the intermediate storage element being operatively coupled between the first filtering stage and the second filtering stage and operative to store, in accordance with the filtering of the current input sample, a partial state value useable to update at least one feedback state value associated with the second filtering stage for the filtering of a next input sample, the partial state value being a function of at least one feedback state value associated with the current input sample and the input sample preceding the current input sample," as recited in independent claim 1. Nor, by way of example and *inter alia*, does the alleged APA disclose "storing a partial state value in an intermediate storage element operatively coupled between the first filtering stage and the second filtering stage, the partial state value being a function of at least one feedback state value associated with the current input sample and the input sample preceding the current input sample," as recited in independent claim 10.

In rejecting the above-mentioned respective elements of claims 1 and 10, it appears that the Examiner relies on the following statement: "third storing means/step (10) of storing a partial state

3

value (w1(n-1) in a storage coupled between the filtering stage and the second filtering stage, the partial state value being a function of a feedback state value (x1(5)) associated with the current input sample (x(n)) and the input sample preceding the current input sample (see w1(n-2))."

To the degree that the Examiner is arguing that reference numeral 10 in FIG. 3 is equivalent to "an intermediate storage element being operatively coupled between the first filtering stage and the second filtering stage," as recited in claims 1 and 10, Applicant respectfully asserts that the Examiner is incorrect.
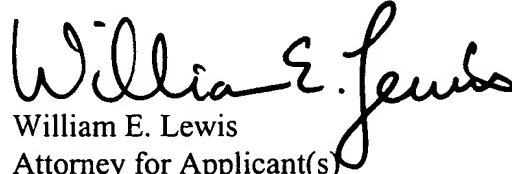
As explained in the present specification at page 3, lines 10 and 11, reference numerals 10, 12, 14 and 16 respectively denote $w_1(n-1)$, $w_1(n-2)$, $w_2(n-1)$, and $w_2(n-2)$, which are the four 16-bit feedback state values for the conventional cascaded biquad IIR filter. Thus, the storage elements that correspond to these feedback state values are <u>within either the first filtering stage or the second filtering stage</u> of the cascaded biquad IIR filter. In contrast, claims 1 and 10 recite "an intermediate storage element being operatively coupled <u>between the first filtering stage and the second filtering stage</u>." Thus, the alleged APA clearly does not disclose such an intermediate storage element of the claimed invention.

The alleged APA also does not disclose what is stored in such an intermediate storage element, namely, "a partial state value useable to update at least one feedback state value associated with the second filtering stage for the filtering of a next input sample, the partial state value being a function of at least one feedback state value associated with the current input sample and the input sample preceding the current input sample," as recited in the claimed invention.

Furthermore, Applicant asserts that the claims which depend from independent claims 1 and 10, namely, claims 2-4, 6-9, 11-13 and 15-18 are not only patentable over the alleged APA in view of the above reasons, but also because such dependent claims recite patentable subject matter in their own right.

In view of the above, Applicants believe that claims 1-20 are in condition for allowance, and respectfully request withdrawal of the §102(b) rejection.

Respectfully submitted,

Date: July 6, 2004

William E. Lewis
Attorney for Applicant(s)
Reg. No. 39,274
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560
(516) 759-2946